



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,680	06/25/2003	Gary L. Graunke	42P16433	3764

8791 7590 08/31/2007  
BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
1279 OAKMEAD PARKWAY  
SUNNYVALE, CA 94085-4040

EXAMINER

TRUONG, THANHNGA B

ART UNIT	PAPER NUMBER
----------	--------------

2135

MAIL DATE	DELIVERY MODE
-----------	---------------

08/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/603,680

Applicant(s)

GRAUNKE ET AL.

Examiner

Thanhnga B. Truong

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to the communication filed on June 18, 2007. Claims 1-35 are pending. At this time, claims 1-35 are still rejected.

#### ***Response to Argument***

2. Applicant's arguments filed June 18, 2007, with respect to claims 1-35, have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5-7, 10-15, 17-32, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doberstein et al (US 5,809,148), and further in view of Monroe et al (US 5,259,025).

a. *Referring to claim 1:*

i. Doberstein teaches a method comprising:

(1) reading an encrypted data block from memory  
**(column 3, lines 11-22 of Doberstein);**

(2) regenerating, within a predetermined time required to read the encrypted data block from the memory, a keystream used to encrypt the data block according to one or more stored criteria of the data block **(see Figure 2 and column 3, lines 11-15 and lines 25-39 of Doberstein);** and

(3) once reading of the encrypted data block is complete, decrypting the encrypted data block according to the generated keystream **(column 3, lines 25-29 of Doberstein).**

ii. Although Doberstein teaches the keystream is either pulled (e.g. read or retrieved) from storage or generated from data stored from the initial receipt of the encrypted data message during the re-transmission of block of encrypted

Art Unit: 2135

data (column 3, lines 11-22 of Doberstein), Doberstein is not clear in showing whether or not the block of encrypted data is read from storage before the re-transmission process. On the other hand, Monroe clearly teaches this limitation in Figure 4, element 94 and further details on column 1, lines 57-61 of Monroe.

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Doberstein (if indeed is not inherent) with the teaching of Monroe for verifying fake-proof video identification data (**column 1, lines 9-10 of Monroe**).

iv. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Doberstein (if indeed is not inherent) with the teaching of Monroe for validating at a central location a transaction involving presentation of a user identification device at a remote location (**column 1, lines 45-47 of Monroe**).

b. Referring to claim 2:

i. Doberstein further teaches:

(1) wherein reading the encrypted data block comprises: receiving a request for the encrypted data block (**column 3, lines 20-22 of Doberstein**); and reading the encrypted data block from a random access memory (**column 3, lines 11-20 of Doberstein**).

c. Referring to claims 5, 10, 25, 29:

i. Doberstein further teaches:

(1) wherein decrypting the encrypted data block is performed within a single clock cycle (**column 3, lines 25-29 and column 4, lines 39-41 of Doberstein**).

d. Referring to claim 6:

i. This claim consist an article of manufacture including a machine readable medium having stored thereon instructions which may be used to program a system to perform a method claim 1 and thus it is rejected with the same rationale applied against claim 1 above.

e. Referring to claim 7:

i. This claim has limitations that is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

f. Referring to claim 11:

i. Doberstein teaches a method comprising:

(1) computing an initialization vector for a data block according to one or more criteria of the data block (**column 8, lines 64-67; column 3, lines 25-39 of Doberstein**); storing the criteria of the data block used to compute the initialization vector for the data block (**column 3, lines 8-10 of Doberstein**); computing a keystream from the initialization vector and a secret key using a predetermined number of round of a cipher that are reduced to match a memory read latency of a memory (**column 3, lines 11-39 of Doberstein**); encrypting the data block according to the keystream (**column 1, lines 53-65 of Doberstein**); and storing the encrypted data block within memory (**column 3, lines 8-10 of Doberstein**).

ii. Although Doberstein teaches the keystream is either pulled (e.g. read or retrieved) from storage or generated from data stored from the initial receipt of the encrypted data message during the re-transmission of block of encrypted data (column 3, lines 11-22 of Doberstein), Doberstein is not clear in showing whether or not the block of encrypted data is read from storage before the re-transmission process. On the other hand, Monroe clearly teaches this limitation in Figure 4, element 94 and further details on column 1, lines 57-61 of Monroe.

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Doberstein (if indeed is not inherent) with the teaching of Monroe for verifying fake-proof video identification data (**column 1, lines 9-10 of Monroe**).

iv. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Doberstein (if indeed is not inherent) with the teaching of Monroe for validating at a central location a

Art Unit: 2135

transaction involving presentation of a user identification device at a remote location **(column 1, lines 45-47 of Monroe)**.

g. Referring to claim 12:

i. Doberstein further teaches:

(1) wherein computing the initialization vector comprises: receiving a write request for the data block **(column 3, lines 11-12 of Doberstein)**; identifying a page containing the data block **(column 3, lines 60-65 of Doberstein)**; forming a page initialization vector according to the page containing the data block as the initialization vector of the data block **(column 3, lines 25-39 of Doberstein)**.

h. Referring to claims 13-14:

i. These claims have limitations that is similar to those of claim 12, thus they are rejected with the same rationale applied against claim 12 above.

i. Referring to claim 15:

i. Doberstein further teaches:

(1) wherein forming the block initialization vector comprises: selecting a block counter value for page writes to the page containing the data block as the block initialization vector **(column 3, lines 55-65 of Doberstein)**.

j. Referring to claim 17:

i. Doberstein further teaches:

(1) wherein computing the keystream comprises: providing the initialization vector and the secret key to one of a stream cipher and a block cipher to generate the keystream **(column 3, lines 25-39 of Doberstein)**.

k. Referring to claims 18-20, 34-35:

i. These claims have limitations that is similar to those of claims 11-15, thus they are rejected with the same rationale applied against claims 11-15 above.

l. Referring to claims 21-23, 26-28:

i. These claims consist a processor to implement a method claims 1 and 11, and thus it is rejected with the same rationale applied against claims 1 and 11 above.

m. Referring to claim 31:

i. This claim has limitations that is similar to those of claim 11, thus it is rejected with the same rationale applied against claim 11 above.

n. Referring to claim 32:

i. This claim has limitations that is similar to those of claim 13, thus it is rejected with the same rationale applied against claim 13 above.

5. Claims 3, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doberstein et al (US 5,809,148), in view of Monroe et al (US 5,259,025), and further in view of Lynn et al (US 5,345,508).

a. Referring to claims 3, 8:

i. Although Doberstein's modified invention teaches the claimed subject matter using in an initialization vector in the encryption process, They are silent on the capability of using an initial portion of initialization vector in the encryption process.

(1) wherein re-generating the keystream comprises: identifying an initial portion of an initialization vector used to encrypt the data block according to a page containing the encrypted data block; identifying a remaining portion of the initialization vector used to encrypt the data block according to a block number of the data block; and recomputing the keystream according to the identified initial portion of initialization vector and the identified remaining portion of the initialization vector and a secret key (**column 3, lines 30-39 of Doberstein**).

ii. On the other hand, Lynn teaches the portion of initialization vector in column 3, lines 38-39 of Lynn.

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the modified-invention of Doberstein with the teaching of Lynn for processing initialization vectors or initial values (**column 2, lines 60-65 of Lynn**).

iv. The ordinary skilled person would have been motivated to:

Art Unit: 2135

(1) have modified the modified-invention of Doberstein with the teaching of Lynn to implementing a cryptography engine.

***Allowable Subject Matter***

6. Claims 4, 9, 16, and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.



Application/Control Number: 10/603,680

Page 8

Art Unit: 2135

TBT

August 27, 2007

Charles B. Day  
Primary Examiner AU2135